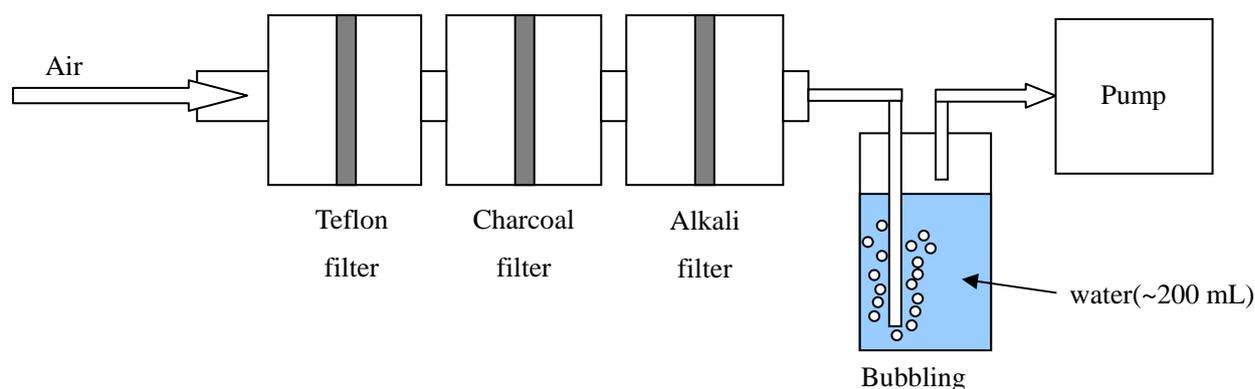


## Gas Experiment Project

1. We setup the filter stack and bubbling bottle which are shown in following figure at Pbar Air Sampling Station. We ship all instrument such as filter and bubbling bottle from Japan to Fermilab.



2. Air components are collected using the filter and water. After collecting, we put the filter in a polyethylene bag and put water in a plastic bottle.

3. We carry the filter and water to gamma-ray counting room. Gamma-spectrometry is carried out there.

4. After measuring gamma-ray, we carry the samples to chemistry room. We are going to separate  $\text{PO}_4$  and  $\text{SO}_4$  ion chemically. And then, beta activity is measured by GM counter. GM counter is also shipped from Japan. We are planning to use following chemical reagent.

Nitric Acid, Hydrochloric Acid, Ammonia Water, Barium Chloride,  
Hydrogen Peroxide, Ammonium Molybdate, Magnesium Chloride,  
Sulfate Ion Standard Solution, Phosphate Ion Standard Solution

We are going to ship FIVE reagent: Ammonium Molybdate, Magnesium Chloride, Sulfate Ion Standard Solution, Phosphate Ion Standard Solution. And we are going to use the other chemical reagents of Fermilab's and some experimental instruments such as beaker.